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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,760	05/05/2006	Armin Hopp	22407-00047-US	1440
30678 7590 10/06/2011 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20006				
EXAMINER				
HENN, TIMOTHY J				
ART UNIT		PAPER NUMBER		
2622				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,760

Applicant(s)

HOPP, ARMIN

Examiner

TIMOTHY J. HENN

Art Unit

2622

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-4 and 11-18 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-4, 11, 12, 14-16 and 18 is/are rejected.
- 8) ☒ Claim(s) 13 and 17 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 05 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-886)
- Paper No(s)/Mail Date ____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 August 2011 has been entered.

Response to Arguments

3. Applicant's arguments filed 16 August 2011 have been fully considered but they are not persuasive. Applicant argues that there is "no control function or connection disclosed in Isakovic et al. between the graphics computer 22/image data intermediate memory 104 and projector 20 or any DMD". The examiner disagrees. Graphics computer 22 controls the DMD by outputting data for display. Depending on what data is output, the display created by the DMD will change. Since the claims as written do not define the manner in which the driver circuit "controls" the DMD, this arrangement is believed to meet the claim limitations as written. Furthermore, there is a connection between the graphics computer 22 and memory 104 to the DMD in projector 20 through items 108 and 98 (Figure 6, see lines connecting devices indicating the flow of data). It is noted that the claims as written do not require a direct connection between the

devices, or in any way forbid the presence of additional devices in the system.

Therefore, Isakovic reads on the claims as written.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 14, 15 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Isakovic et al. (US 2002/0154145).

[claim 1]

6. Regarding claim 1, Isakovic discloses a DLP-projector for the active projection of stereoscopic images (Figure 6, Item 20), comprising at least one DMD (Paragraph 0105), at least a first driver circuit interacting with a memory (Figure 6, Items 22 and 104) and controlling at least one DMD (Figure 6, Item 20; Paragraph 0105), and at least a first signal input (Figure 6, Item 95) for the input of image data of at least a first image channel and a second image channel, and at least a second driver circuit interacting with a memory (Figure 6, Items 24 and 106); and a switching device (Figure 6, Item 108), which is connected on one side with the two driver circuits and on another side with at least the one DMD; wherein the first driver circuit processes image data of the first image channel and the second driver circuit processes image data of the second image channel, and the switching device directs to the DMD, alternately, one or more

images or frames from the first driver circuit, and one or more images or frames from the second driver circuit (Paragraphs 0206-0214).

[claim 2]

7. Regarding claim 2, Isakovic discloses a DLP projector including at least a second signal input (Figure 6, Item 95, Input to 22); wherein the first signal input receives the image signals of the first image channel and forwards such to the first driver circuit, and the second signal input (Figure 6, Item 95, Input to 24) receives the image signals of the second image channel and forwards such to the second driver circuit.

[claim 14]

8. Regarding claim 14, Isakovic discloses a switching device which connects all signal lines with the first driver circuit and data lines of the DMD only selectively with the first driver circuit or another driver circuit (Figure 6, Item 108).

[claim 15]

9. Regarding claim 15, Isakovic discloses a switching device which, for the projection of the image data of an image channel as a mono-image or mono-image sequence (e.g. a L or R image), connects the data lines of the DMD during a desired period of time only with the corresponding data lines of one of the driver circuits (Figure 6, Item 108).

[claim 18]

10. Regarding claim 18, Isakovic discloses a switching device configured to provide at least one control signal from the first driver circuit to the DMD (Figure 6, Item 108; note that data from the driver circuits is output to the DMD, thereby effecting control of

the DMD).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3, 4, 11, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isakovic et al. (US 2002/0154145).

[claims 3 and 4]

13. Regarding claims 3 and 4, Isakovic discloses synchronization components for controlling the system (Figure 6, Items 92 and 100; Paragraphs 0157-0164). However, while Isakovic discloses the use of a clock within the system (e.g. Paragraph 0166), Isakovic does not explicitly disclose that a clock is used for synchronizing the image signals. Official Notice is taken that it is well known in the art to use clock signals to form synchronization signals to keep a proper time source and ensure that operations occur at proper times. Therefore, it would be obvious to use a clock signal to form synchronization signals since clock signals allow for an easy way to track time within a computer system.

[claim 11]

14. Regarding claim 11, Isakovic discloses synchronizing the driver circuits (Figure 6, Inputs 101 to drivers 22 and 24). For further details see the rejection of claims 3 and 4

above.

[claim 12]

15. Regarding claim 12, Isakovic discloses producing a control signal for shutter glasses (Figure 6, Items 110 and 116), but does not explicitly disclose the use of a microprocessor to generate the control signal. However, Isakovic discloses that PC components including microprocessors can be used to implement the system using off-the-shelf PC hardware to allow for updates over the course of time (Paragraphs 0027-0029). Therefore, it would be obvious to use a PC system including a microprocessor to produce the control signal so that the system may be updated later to keep the highest status of power and efficiency.

[claim 16]

16. Regarding claim 16, Isakovic discloses electronic devices such as driver circuits and a switching device. Official Notice is taken that it is well known in the art to arrange electronic devices on circuit boards in order to simplify the construction and installation of the devices. Therefore, it would be obvious to use circuit boards for the driver circuits and switching device in order to simplify the construction and installation of the system. It is noted that claim 16 is written using "comprising" language and is not thought to be limited to a single circuit board.

Allowable Subject Matter

17. Claims 13 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

[claims 13 and 17]

18. While it would be considered obvious to use a DMD driver ASIC as a driver circuit of a projector, it would not be considered obvious to replace the graphics computers of Isakovic which process scene data with a comparatively simple driver ASIC since such a device would not be capable of performing the necessary functions of the graphics computers of Isakovic.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY J. HENN whose telephone number is (571)272-7310. The examiner can normally be reached on M-F 11-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TIMOTHY J HENN/
Primary Examiner, Art Unit 2622